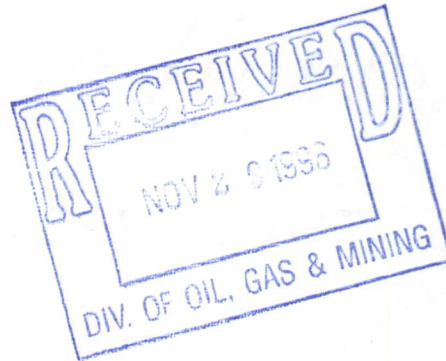


GOCHNOUR & ASSOCIATES, INC.

P.O. Box 3207
Englewood, CO 80155

Tel. (303) 770-7580
Fax. (303) 721-9298



November 27, 1996

Mr. Anthony Gallegos
State of Utah
Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-5801

RE: Summo USA Corporation, Lisbon Valley Project

Mr. Gallegos:

Pursuant to my earlier commitment to provide you with additional information, please find attached, two copies of Reclamation Treatment Map for the Lisbon Valley Project. The maps provided depict the acreage correction (Fee Land) you relayed to me on November 26, 1996.

This should satisfy the final remaining information needs discuss in the Divisions letter to Summo dated October 21, 1996. If you have additional questions or needs, please contact me at the listed letterhead number.

Sincerely,

A handwritten signature in blue ink, appearing to read "Lee Pat Gochnour". The signature is fluid and cursive.

Lee "Pat" Gochnour
Principal

Attachments

cc: Mr. Robert Prescott - Summo USA Corporation

m/037/088

Dennis Fredricks, UDEQ
Tony Gallegos, UDOGM

Dennis/Tony,

Here are copies of a couple of letters we've sent to Summo regarding the DEIS, as we discussed in SLC last week. In the future, I'll cc you folks on any letters we send to Summo so we can all stay "in the loop".

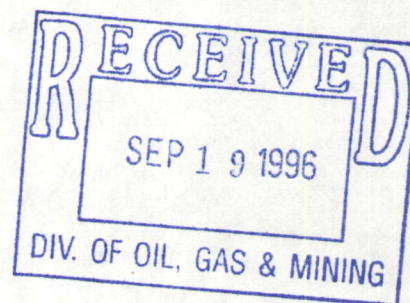
One item of note regarding our August 6 letter. In it, we informed Summo we would require a leak collection system under the leach pad. We under the impression DEQ was asking for such a system. Based on our meeting last week, we will pull back on that requirement, with the understanding DEQ was requesting a collection system under the ponds.

We may also pull back on requirement for monitoring wells around leach pad. Again, we were under impression DEQ would require this. Dennis can you let me know what DEQ's position is on this issue.

Tony, I'll be getting Terry McParland to work with you on the bonding issue, as we discussed.

Appreciate you guys taking the time to meet with me last week. Should help on getting this approval completed. I'll be talking to you.

Lynn Jackson
9/16/96



M/037/088

ALS
8/26/96

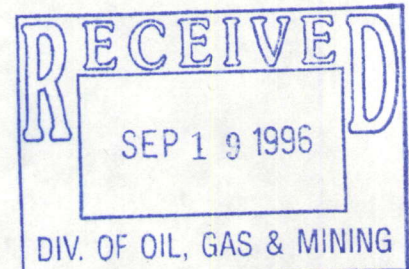
Moab District
82 East Dogwood Avenue
Moab, Utah 84532

UTU-72499
(UT-060)

Bob Prescott, Vice-President Operations
Summo USA Corporation
P.O. Box 847
Moab, Utah 84532

Scott Mernitz, Project Manager
Woodward-Clyde Consultants
Stanford Place 3, Suite 1000
4582 South Ulster Street
Denver, Colorado 80237

AUG 26 1996



Dear Mr. Prescott and Mr. Mernitz:

This letter is intended as follow-up to our meetings in Denver last week (August 20-22, 1996), regarding the Lisbon Valley Copper Project Environmental Impact Statement (EIS).

As you are aware, by letter dated August 6, 1996 from our office to Woodward-Clyde (WWC), we identified several areas where additional data and analysis would be required for the Lisbon Valley Final EIS (FEIS). These issues and areas of concern were identified from our analysis and review of public and agency comments received on the Draft EIS (DEIS). The primary purpose of our meetings with you last week were to identify what data is currently available to assist in providing response to the public comment and in providing for the additional data needs and analysis to be incorporated in the FEIS. Toward that end, we feel the meetings were extremely productive.

In the meeting on Thursday, August 22, between WWC and BLM, we summarized the tasks remaining (based on our discussions the two previous days), and have developed the attached list identifying these tasks and who is to accomplish each. Please review this attachment and let us know any concerns or comments you may have.

In addition to providing the attachment identifying remaining work to be done for the FEIS effort, we have also made a rough estimate of time required to accomplish this work and the resultant schedule for preparation and printing of the FEIS.

Based on our estimation, it will take approximately 5-6 weeks to obtain, analyze and incorporate the additional data into the FEIS. We would therefore roughly estimate that WWC would have a draft of the FEIS available to BLM for review sometime during the first week of October. BLM will then require two weeks to review this draft and assure that all additional information and analysis is included, and public comments adequately addressed.

This preliminary FEIS would then be returned to WWC in mid-October. WWC has estimated it would take them 2 weeks to incorporate final changes and print the FEIS. We would then assume a week to coordinate Federal Register notices and distribution of the FEIS. This would put the schedule for having the FEIS to the public sometime near the first to the middle of November. The public comment period on the FEIS and proposed Record of Decision (ROD) would run for 30 days, or sometime to the first through the middle of December. The final ROD, with any modifications resulting from the FEIS public comment period, would subsequently be issued in early to mid-January 1997.

Many of the items listed on the attached task list can and will be done concurrently. Most of the information will be sent back and forth by fax as it is being developed and finalized, facilitating the review time of the draft FEIS. Several of the tasks will obviously take coordination among all of our offices as they are being developed. However, based on our experiences to date with this project, we have elected to build some "contingency" time into this schedule, so that we can resolve unforeseen issues and assure we go out with an FEIS and ROD that is complete, factual, and represents the best work and decisions we can all collectively accomplish. It is still our full intention to continue to give this EIS project our highest priority, and where times can be shortened we will do so.

Please review the attached work list and let Lynn Jackson know if you have any concerns or comments. Lynn can be reached at (801) 259-6111. We look forward to working with you in the finalization of this process.

Sincerely,

/s/ Brad D Palmer

District Manager

Attachment: (1)
Lisbon Valley Copper Project FEIS Worklist

cc:
Pat Gochnour
Gochnour & Associates
P.O. Box 3207
Englewood, Colorado 80155

Attachment: Lisbon Valley Copper Project FEIS Worklist

Summo Tasks:

- Dump Expansion issue (based on Facility Layout alternative). Where? Size? Provide re-design drawings to WWC and BLM.
- Waste Management Plan for inclusion and analysis in FEIS. Leach pad, waste dumps, pond sludges, current uranium tailings on location to be impacted by operation. Include proposed standards for testing.
- Project Monitoring Plan. Include provisions for base meteorological station. Address by phases: construction, mining, post-mining reclamation.
- Navajo aquifer analysis. Drill test well. Analyze water. Provide analysis to WWC and BLM.
- Powerline route analysis of alternatives considered
- Drainage Plan. Provide design diagrams of drainage around Sentinel pit. Provide drainage plan for Waste Dump A between cliff and waste pile.
- Complete Reclamation Plan. Further details for: test plots, schedules, contour spacings, seed mixtures, erosion control. Performance standards for partial bond release.
- Final post-mining pit profiles diagrams. Pit profiles. Geologic units. Projected water levels.
- Stormwater permit application upgrade
- Map of 186 sample sites locations
- Estimate septic system requirement for State permit (Table 1.1)
- Description of excess water right requirements
- Water supply clarification for leach pad rinsing
- Radionuclide impacts (solid, gas phases)

Woodward-Clyde Tasks:

- Geochemistry: Final pit lake waters, impacts to aquifers, impacts from back-fill alternative.
- Mineralogy: Ore deposit, leach pad, sulfide characterization, pit walls.
- Tons vs yards clarification.
- Cutler formation permeability data and analysis.
- Transportation/accident calculations, San Juan County Haz Mat study..
- Analysis of potential post-mining water usage for irrigation, agricultural, culinary.
- Landslides/static load impacts in dumps and leach heap.
- Visabilty and noise impacts.
- Prepare draft of FEIS.
- Distribute FEIS.

BLM Tasks:

- Bonding assumptions and analysis.
- Follow-up on Native American Coordination.
- Determine actual presence of residents at or near Summit Point.
- Determine conditions of Ucolo road and travel times for FEIS.
- Review draft FEIS and responses to public comment.
- Prepare Draft Record of Decision.
- Prepare Federal Register Notices and final distribution list.

M/037/088

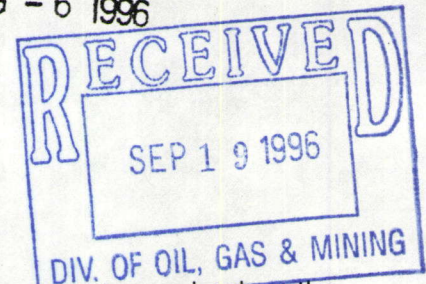
Moab District
82 East Dogwood Avenue
Moab, Utah 84532

UTU-72499
(U-060)

ALJ
8/5/96

AUG - 6 1996

Woodward-Clyde Consultants
Attn: Scott Mernitz, Project Coordinator
Stanford Place 3, Suite 1000
4582 South Ulster Street
Denver, Colorado 80237



Dear Scott:

We have completed our review and analysis of public and agency comments received on the Draft Environmental Impact Statement (DEIS) for Summo USA's proposed Lisbon Valley Open Pit Copper Mine. Based on that review, we are hereby transmitting relevant information on additional data and analysis needs for incorporation into the Final Environmental Impact Statement (FEIS). We have determined that based on the magnitude and complexities of public comments, we will require printing of a Full Text FEIS.

Enclosed you will find 23 pages of required modifications, clarifications, and additional data needs and analysis for the FEIS. These changes are broken into two categories. The first category (pages 1-5) details additional data and analysis needs that will need to be completed and incorporated into the FEIS. In some instances this may require additional data collection from the project proponent, in other cases the additional data and analysis may come from Woodward-Clyde (WWC) staff. In essence, the primary areas requiring additional data and analysis include hydrology, geochemistry, cultural resources (Native American consultation), wildlife, air quality (visibility), noise, and transportation.

The second category (pages 6-23) consists primarily of editorial and clarification items required in the FEIS, that are based on BLM's internal review of the DEIS and public comment. We have attempted to integrate the public comment into our FEIS review and directions, such that making the required changes in the FEIS should address specific public comment items and issues.

Several of the items under the first category (pages 1-5, additional data and analysis needs), are quite complex. We would propose to have a meeting in Denver during the week of August 19-23, involving WWC, Westec, BLM, Summo, and appropriate Summo subcontractors. We can then collectively address these issues and determine the best course of action to proceed. The majority of the items on Pages 6-23 are of a nature that corrections and clarification can begin immediately.

After collection and analysis of the additional information, and inclusion of the editorial and clarification issues, we can then proceed to a Preliminary FEIS for review by BLM prior to release and publication. After review of the PFEIS, and prior to publication and release of the FEIS, we can formally respond to the public comment letters, which have previously been forwarded to your office. The FEIS will contain a copy of each comment letter and our response. We will work with WWC to provide this response.

At that point we will be ready to proceed with publication in the Federal Register of the Notice of Availability of the FEIS, along with publication of BLM's Record of Decision (ROD). BLM will prepare the ROD and provide it to WWC prior to publication of the FEIS.

We fully appreciate the complexities of the work that lies before us, and look forward to working with WWC and Summo to resolve discrepancies and provide the additional data and analysis needed to assure we make the best decision we can regarding Summo's proposal. We will continue to strive to meet agreed upon deadlines for publication of the FEIS, but realize that with the additional work needed for the FEIS, combined with the overall complexity of finalizing the document, the schedule may be prone to additional slippage. Our goal is a sound EIS and decision, and we will meet that goal first and foremost. Lynn Jackson will be in contact with your office to answer questions, and coordinate upcoming meetings.

Sincerely,

/s/ Katherine Kitchell

District Manager

Enclosure: (1)

Additional Data and Analysis Needs - Lisbon Valley FEIS

cc:

Bob Prescott, Summo USA, Inc. (w/enclosure)
P.O. Box 847
Moab, Utah 84532

Pat Gochnour, Gochnour and Associates (w/enclosure)
P.O. Box 3207
Englewood, Colorado 80155

ALJackson:alj:8/5/96

I. ADDITIONAL DATA AND ANALYSIS NEEDS - LISBON VALLEY FEIS

1- Post-Mining Pit Water Quality and Potential Effects on Aquifers.

FEIS must include additional detailed analysis on post-mining pit lake water quality and potential effect on downgradient aquifers. This type of data can likely be determined from additional geochemical analysis of ore body and pit wall lithology and subsequent modeling. If further data cannot determine post-mining pit water quality, additional downgradient aquifer monitoring wells, south of GTO pit, will be required as condition of Plan Of Operation approval. Additionally the FEIS needs to access to what degree groundwater flow paths would contact ARD producing lithologies as the post-mining pit lakes begin to fill.

2- Ore Mineralogy and Geochemistry

The FEIS is going to need additional detailed information and assessment of ore mineralogy and geochemistry as it relates to sulfide content of the ore deposit. At present the DEIS only provides geochemical analysis of the overburden as it relates to potential Acid Rock Drainage (ARD). This additional information will provide data that can help address several questions identified during the comment period. These questions would include:

- Analysis of individual waste rock dump composition, potential for ARD generation and consequent closure options.
- Spent ore heap rinse water requirements and proposed closure strategies based on acceptable effluent concentration levels.
- Potential post-mining pit wall and pit water geochemistry and prediction of impacts.
- Potential geochemical and hydrologic impacts from a partial or complete back fill alternative.
- Ratio between acid-generating potential (AGP) and acid-neutralizing potential (ANP) for individual waste dumps.
- Mineralogic sources of AGP and ANP.

3- ARD Potential and Sulfide Mineralogy

The FEIS needs to identify the source of the AGP, is it from acid-generating iron sulfide minerals (e.g., pyrite or marcasite) or from non-acid generating sulfide minerals (e.g., chalcocite) ? If the AGP is from pyrite, what is the mineral grain size range and shape? Is the pyrite framboidal pyrite or crystalline pyrite? These two types of pyrite have significantly different characteristics for ARD.

Additionally, the FEIS needs to identify whether or not the iron-sulfide minerals are also present as part of the mineralized envelope that contains the ore zone, how far the sulfide envelope extends beyond the ore grade cutoff, and how much of the sulfide envelope would be waste rock. The FEIS also needs to identify what minerals provide the ANP.

Based on the limited applicability of the EPA 1312 tests (as identified in Bill White's comment letter from the Utah State Office of the BLM), we will need to determine if additional testing is require, utilizing EPA method 1320 or ASTM Method D 5284-92, to more accurately define ARD potential.

The FEIS also needs to identify the location of the 186 samples taken.

The FEIS needs to include cross-sections, similar to those found in Figs 3.1-3 through 3.1-7, which show projected final post-mining pit profiles and geologic units. We also need to include a line across pit profiles showing projected post-mining water levels. We can use the current cross sections and simply add this information.

4- Hydrology

Further analysis of Navajo/Entrada/Cutler aquifers needs to be conducted. The first step will be to see if data from these aquifers exists from wells within Lisbon Valley. If such data exists it needs to be analyzed and presented in FEIS. If no data on these aquifers is available, BLM will likely require drilling of test wells into these aquifers, and analysis of data, prior to completion of the FEIS.

The FEIS needs additional discussion of springs in the project area and potential for impact, based on comments received from USGS.

The FEIS needs additional discussion of projected groundwater aquifer interconnectivity, particularly between the Mancos, Morrison and Cutler formations, as indicated in Utah DEQ comments.

Summo will be required to upgrade storm water handling capabilities and design to increase capacity based on comments from EPA. They have suggested, and BLM agrees, that design capacity needs to be based on a 24 hour storm event that occurs at the end of a "wet" season when the ponds are already operating at maximum capacity. This may again involve increasing the size and acreage of the storm discharge ponds.

San Juan County has requested additional analysis of the potential for long-term post mining use of pit lake water for agricultural or culinary use. The FEIS needs to further address this potential. This assessment will likely be dependent on results of additional geochemical analysis and prediction of post mining water quality identified under Item #4.

Precipitation estimates, as they relate to groundwater recharge, should be included. This would include information on how much precipitation occurs as rain versus snow, which months these types of precipitation events occur, storm distribution patterns, and frequency and duration of rains.

Water level contour maps need to be included as relates to pit areas.

USGS identified aquifer test results that were inconsistent with reported hydrologic parameters, particularly regarding transmissivity. Assumptions used for transmissivity should be explained in FEIS.

FEIS needs description of lithologic units between Burro Canyon aquifer and Navajo aquifer to support conclusion of no impact, as per USGS comments.

FEIS needs to address storm water permitting issues as identified by comment from Utah DEQ.

FEIS needs rationale for Summo requesting water rights on more water than the analysis indicates they will require.

5- Native American Consultation

Must follow-up and close loop on Native American consultation with Navajo and Hopi prior to release of FEIS. This will include follow-up phone calls to Navajo, and possible presentation to Hopi Clan Elders on 8/15 in Arizona. Purpose of Hopi presentation would be to provide maps, photos, video, and information and to see if they still request a site visit by the 10 clan leaders. If site visits are still requested, travel expenses would have to be paid by Summo.

6- Monitoring Plan

FEIS must contain a detailed Monitoring Plan in Section 2 of FEIS. This would include monitoring for construction, mining and post-mining phases. Plan would be specific as to what will be monitored, what conditions and standards must be met, who will monitor, reports required, when monitoring will occur, and remedial actions necessary if monitoring conditions and standards are exceeded.

7- Leach Pad Monitoring Wells

Leach pad groundwater monitoring wells and baseline data will be required as condition of Plan Of Operations (POO) approval, prior to construction activities, per DEQ comments. These wells would include locations to monitor shallow aquifers below leach pad.

In addition, based on comments from EPA and Utah DEQ, BLM will require a leak collection system under the leach pad, in addition to the leak detection system proposed.

8- Reclamation

The FEIS needs to identify the following:

- Treatment process for spent ore rinse solutions.
- Suitability of soils for providing post-mining heap leach pad impermeable layer.
- Proposed method of removal and relocation sites for pre-existing uranium bearing waste rock from the old Continental mine adjacent to the GTO pit.

Based on public comment, BLM has questions regarding the proposed final 2.5:1 grade of reclamation sideslopes, i.e., is it adequate to allow successful reclamation. Prior to completion of the FEIS we will need to consider whether or not 3:1 sideslopes would be more appropriate. This would likely increase the amount of acreages impacted by the heap pad and the waste dumps, and will have to be analyzed.

Upgrade discussion on sediment control measures in FEIS to provide more detail of erosion control measures which would be used.

FEIS should address potential for reclamation vegetation to bio-accumulate toxic metals.

9- Wildlife

Provide results and analysis of spring wildlife surveys. There are several references in the DEIS that spring surveys will be completed. The final document needs to address what species were observed, if the species would be close enough to the proposed mine to be impacted, if the species needs to be analyzed further (in Section 4), or if further analysis of the species can be dismissed in the DEIS because the species is not present. Specific comments on these surveys are addressed on pages 3-46, 3-47, 4-41, 4-42, and 4-43.

Upgrade T&E discussions, based on input from USFWS. This would include additional narrative description of Endangered fish species in the Dolores/Colorado river system in Section 3. We also need to add statements under Section 4, Wildlife detailing the "No Effect" determination on impacts to endangered species: black-footed ferret, bald eagle, and peregrine. Add information on the results of the Section 7 consultation with FWS when obtained.

10- Radionuclides

Based on comments from EPA and Utah DEQ, the FEIS needs upgraded discussion of impacts to soils and watershed conditions from the use of radionuclide contaminated water for dust suppression. Will need to pull more data from Cornish report and put in text of FEIS. Also, based on further assessment of Navajo aquifer, if the quality is found to be significantly higher, and the quantity is available, mitigation would include using only water from the Navajo for dust suppression. USGS comments provide some input on this issue.

11- Transportation

The calculations for traffic accident rates need to be reanalyzed in accordance with comment from Kevin Walker which indicates errors in methodology. Rather than providing an overall average for all highway segments studied, the FEIS should present the calculated accident rate for each segment. The accident rates for hazardous materials should also be reanalyzed accordingly. In addition, the FEIS should present information summarizing the results of a hazardous materials survey conducted by San Juan County (copy attached), and relate the transportation of hazardous materials specific to this project, to the results of the San Juan survey.

12- Noise

Upgrade sections on noise impacts based on report recently prepared by Air Sciences.

13- Air Quality

Based on several comments from the public, the FEIS needs to add additional discussion on impacts to viability. Even though analysis indicates applicable air quality standards would be met, what are the impacts to viability from the project in and near project site.

14- Powerline

The FEIS needs to discuss how the proposed powerline location was selected, what alternatives were considered, and why they were rejected.

15- Landslides

FEIS needs to include discussion under geotechnical resources of the potential for landslides on faces of waste dumps and leach pad. What is the likelihood based on static loads, what would the impacts be, and how would they be mitigated and/or remediated.

16- Bonding Assumptions

The FEIS needs to include a discussion of general parameters for bonding assumptions by alternative. BLM will have lead and will provide this information to WWC.

17- Tons vs Yards.

The document mixes these numbers to an extent, making it difficult to track numbers. We want volumes in waste dumps and the leach pad given in yards, throughout the document. We can retain "tons" in Section 2, for the description of mining, but once the material is out of the ground, we want the tons converted to yards. Yards are easier for people to visualize volumetrically.

Tonnage figures for waste rock are not consistent. We can appreciate that these figures are estimates and the actual figures would vary depending upon swell factors; however, it would be beneficial if there was more consistency:

Page 2-6, approximately 89,100,000 tons for dumps; but the figures from the pits in Section 2.2.2.2 total 93,300,000 tons. Table 2-2 totals 97,100,000 tons. Page 2-43, waste rock will total about 90,000,000 tons.

Page 2-7, Dump A would hold 30,800,00 tons, but Table 2-2 shows 38,800,000 tons.